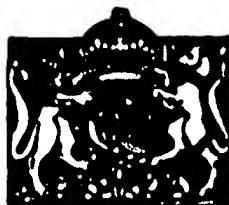


# PATENT SPECIFICATION

315,971



Application Date: June 22, 1920. No. 18,158 / 28.

(Patent of Addition to No. 278,488: dated Aug. 26, 1928.)

Complete Accepted: July 26, 1929.

15. Aug. 1929

## COMPLETE SPECIFICATION.

### Heating and Cooling Appliances for Surgical Purposes.

1. DAVID SARASON, of No. 22, Paul Heysestrasse, München, Bavaria, Germany, of German Nationality, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:

This invention relates to improvements in the apparatus for hot and cold treatment of the inner female genitalia described and shown in Patent No. 278,488. According to this patent 278,488 the apparatus consists of an inflatable bladder designed to be introduced in collapsed state, and of a water bag with charging hole from which the water can be forced under pressure into the inserted rubber bladder. The bladder and the bag are connected by a mouth piece adapted to be shut off by means of a cock and by a connecting sleeve. On this connecting sleeve the inflatable bladder is mounted, the water bag being tied on the mouth piece or clamped on the same.

This invention has for its object, to provide better and more practical connection means for connecting the expandable bladder with the sleeve and for connecting the bladder with the water bag, in order, on the one hand, to prevent the bladder slipping off and the joint getting leaky and, on the other hand, to obtain greater freedom of movement of the water bag which is designed to be used for the external treatment of the abdomen.

The invention consists in that the bladder made of very thin rubber has a strengthened rubber neck to be placed on the connection-olive, and the connection of the water bag on the olive of the connecting piece is obtained by means of a flexible tube of greater length.

An embodiment of the invention is shown in the only figure of the accompanying drawing in elevation partly in section.

The tube *h* designed for the introduction of the inflatable rubber bladder *b* is formed as an extension of a thick olive *c*<sup>1</sup> of a connection piece on which the bladder is mounted, said connection piece having a second olive *c*<sup>2</sup> of less great diameter

designed to be inserted into the end of a flexible tube *i* the other end of which is directly connected to the water bag *a*. A tube clamp *k* of known type serves to shut off the communication between bag *a* and the bladder *b* or inversely. Instead of this tube clamp a cock might be inserted at a suitable point in the tube or mounted on the olive *c*<sup>1</sup>. Owing to the tube connection a greater freedom of movement of the water bag *a* is obtained so that the person who uses the apparatus can place the water bag on the abdomen to use it for example as a hot water bottle, the bladder being used for the internal treatment.

The rubber neck *b*<sup>1</sup> of the bladder *b* is strengthened so that it can be placed over the thick olive *c*<sup>1</sup> of the connection piece without tearing and without the use of any other securing means as for instance tying, or a rubber ring, bead or the like. Such safety means for fixing the bladder have proved not to be very practical, as by tying the very thin bladder is easily damaged or cut through, and as rings or beads of small diameter cannot be moved over an olive of larger diameter, if they are narrow, and if they are wide enough they do not produce a sufficiently strong tension to prevent the expanded bladder slipping off the olive under the water pressure. If such connecting means are used the joint between the bladder and the connection tube will get leaky very soon so that the apparatus could not be used by a person lying in bed.

The strengthened rubber neck *b*<sup>1</sup> of the bladder ensures the secure hold on the olive and withstands the water pressure existing in the bladder, so that no leaking can occur. The bladder can easily be removed, this being necessary for hygienic and other reasons, and a smooth outer surface is obtained at the joint as neither strings, beads or rings, which might cause pain or injuries are necessary. The thickening of the neck of the bladder can be obtained for example by repeated dipping into a rubber solution and allowing to set hard.

Having now particularly described and ascertained the nature of my said inven-

tion, and in what manner the same is to be performed, I declare that what I claim is:—

1.—An improvement in or modification of the apparatus claimed in Patent Specification No. 278,488 for hot and cold treatment of the inner female genitals by means of a bladder and water bag connected the one with the other so that the connection can be shut off, the widely expandible bladder being introduced in not inflated state, whereupon hot or cold water is forced into the same from the water bag, characterized in that the neck  $b^1$  of the bladder  $b$  which is made of very thin rubber, is thickened or strengthened so that this neck exerts on

a thick connection olive, over which it is to be pulled, an increased tension for withstanding the pressure in a secure and water-tight manner.

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2.—Apparatus as claimed in claim 1, characterized in that between the bladder  $b$  to be introduced and the water bag  $a$  a longer piece of flexible tube  $c$  is inserted so that the water bag can be used at the same time for external treatment of the abdomen, more especially as hot water bottle.

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Dated this 22nd day of June, 1928.  
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315.971 COMPLETE SPECIFICATION

1 SHEET

*This Drawing is a reproduction of the Original on a reduced scale.*

